

# Cutting data recommendations for solid carbide drills

Feed and cutting speed

## Tritan-Drill-Steel | SCD661

MMG*		Workpiece material	Strength/hardness [N/mm <sup>2</sup> ] [HRC]
P	P1	P1.1 Structural, free-cutting, case hardened and heat-treated steels, non-alloy	< 700
		P1.2 Structural, free-cutting, case hardened and heat-treated steels, non-alloy	< 1,200
	P2	P2.1 Nitrided, case hardened and heat-treated steels, alloy	< 900
		P2.2 Nitrided, case hardened and heat-treated steels, alloy	< 1,400
	P3	P3.1 Tool, bearing, spring and high-speed steels**	< 800
		P3.2 Tool, bearing, spring and high-speed steels**	< 1,000
		P3.3 Tool, bearing, spring and high-speed steels**	< 1,500
	P5	P5.1 Cast steel	
M	M1	M1.1 Stainless steels, austenitic	< 700
		M1.2 Stainless steels, ferritic/austenitic (duplex)	< 1,000
K	K1	K1.1 Cast iron with lamellar graphite (grey cast iron), GJL	< 300
		K2.1 Cast iron with spheroidal graphite, GJS	< 500
	K2	K2.2 Cast iron with spheroidal graphite, GJS	≤ 800
		K2.3 Cast iron with spheroidal graphite, GJS	> 800
	K3	K3.1 Cast iron with spheroidal graphite, GJV; malleable cast iron, GJM	< 500
		K3.2 Cast iron with spheroidal graphite, GJV; malleable cast iron, GJM	> 500

## MEGA-Speed-Drill-Steel | SCD621

MMG*		Workpiece material	Strength/hardness [N/mm <sup>2</sup> ] [HRC]
P	P1	P1.1 Structural, free-cutting, case hardened and heat-treated steels, non-alloy	< 700
		P1.2 Structural, free-cutting, case hardened and heat-treated steels, non-alloy	< 1,200
	P2	P2.1 Nitrided, case hardened and heat-treated steels, alloy	< 900
		P2.2 Nitrided, case hardened and heat-treated steels, alloy	< 1,400
	P3	P3.1 Tool, bearing, spring and high-speed steels**	< 800
		P3.2 Tool, bearing, spring and high-speed steels**	< 1,000
		P3.3 Tool, bearing, spring and high-speed steels**	< 1,500
	P4	P4.1 Stainless steels, ferritic and martensitic	
	P5	P5.1 Cast steel	
	P6	P6.1 Stainless cast steel, ferritic and martensitic	
M	M1	M1.1 Stainless steels, austenitic	< 700
		M1.2 Stainless steels, ferritic/austenitic (duplex)	< 1,000
	M2	M2.1 Stainless/heat-resistant cast steel, austenitic	< 700
	M3	M3.1 Stainless cast steel, ferritic/austenitic (duplex)	< 1,000
K	K1	K1.1 Cast iron with lamellar graphite (grey cast iron), GJL	< 300
		K2.1 Cast iron with spheroidal graphite, GJS	< 500
	K2	K2.2 Cast iron with spheroidal graphite, GJS	≤ 800
		K2.3 Cast iron with spheroidal graphite, GJS	> 800
	K3	K3.1 Cast iron with spheroidal graphite, GJV; malleable cast iron, GJM	< 500
		K3.2 Cast iron with spheroidal graphite, GJV; malleable cast iron, GJM	> 500

\* MAPAL machining groups

\*\* If the alloy parts Cr, Mo, Ni, V, W in total > 8% then select the next highest MAPAL machining group.